

PATENT CLAIMS

1. A device for connecting a wheel axle housing (3) with a chassis (1, 2) of a vehicle, comprising
 - a stabilizer (5) having
 - a rod shaped torsion element (4) that is arranged such that it can rotate along its longitudinal axis (6),
 - two first arms (11, 12) running in a crosswise direction in relation to torsion element (4) having first end portions (13,14) that are rigidly attached to corresponding end portions of torsion element (4), and
 - two second arms (drop links) (21,22), whose first end portions (23,24) are articulatedly attached to the second end portions (15,16) of the first arms (11,12), whereby the arms (11, 12, 21, 22) extend at an angle in relation to the longitudinal axis (6) of torsion element (4) and further comprising
 - at least two spring/suspension elements (61,62) with a first member (63) that is connected with the wheel axle housing (3), and the second member (68) that is connected to the chassis (1, 2), whereby members (63,68) are arranged for reciprocal resilient movement and to transfer a portion of the chassis' weight to the wheel axle housing (3),
 - characterized in that
 - torsion element (4) is mounted in the chassis (1, 2),
 - the second end portion (25,26) of the second arms (21,22) are connected to the wheel axle housing (3) and extend essentially vertically up therefrom, and
 - the spring/suspension elements have corresponding third arms (31,32) having first end portions (33,34) that are rigidly attached to the corresponding end portions (7, 8) of torsion element (4), and second end portions (35,36) that are connected with the first member (63).
2. The device according to claim 1 wherein the wheel axle housing (3) is arranged to be raised such that the corresponding wheel does not touch the ground, whereby members (63, 68) of the spring/suspension elements in a first direction in relation to each other, characterized in that the spring/suspension elements comprise force exerting means (81) that are arranged to move the members reciprocally in the first direction.
3. The device according to claim 2, characterized in that the two members (63,68) of the spring/suspension elements (61,62) define a pressure gas chamber (85) and the force exerting means comprise a channel (86) that is arranged in one of the members (63,68), and that is arranged to connect pressure gas chamber (85) with a pressurized gas source (73), whereby an increase of the gas pressure in pressure gas chamber (73) causes a reciprocal movement of the members (63,68) in the first direction.
4. The device according to one of the preceding claims,

characterized in that torsion element (4) is arranged on the side of wheel axle housing (3) that is directed towards the vehicle's midsection, seen in the vehicle's lengthwise direction.

5. The device according to one of the preceding claims, characterized in that the second member (68) is articulately connected with the chassis (1, 2).
6. The device according to one of the preceding claims, characterized in that the spring/suspension connection between the members (63,68) is achieved in that said members define a pressure gas chamber (70), whereby an increase in the weight of the chassis (1, 2) results in a reduction of the volume of pressure gas chamber (70) and an increase in the pressure of the pressure gas.
7. The device according to claim 6, characterized in that a membrane (60) that defines pressure chamber (70) is arranged between the two members (63,68).